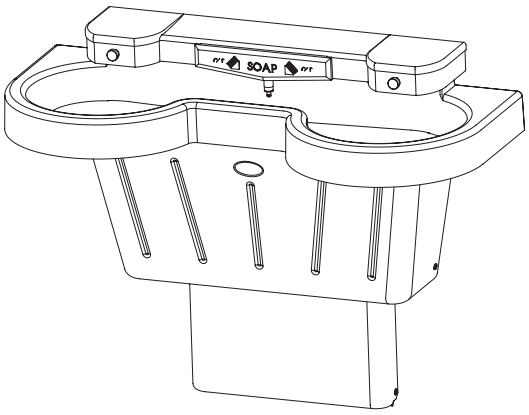
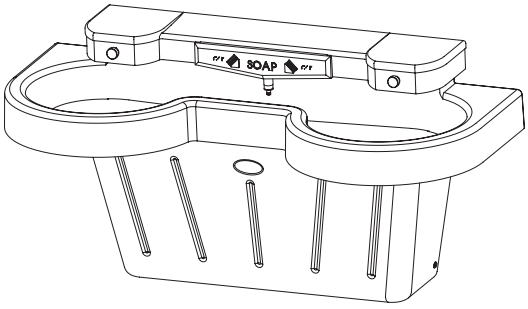


SS-2N/AST/STD/LSD-2



SS-2N/AST-WH/LSD-2

Installation

SS-2N/AST/STD
SS-2N/AST-WH

Express® Lavatory System SS-Series

Express Lavatory Systems are ADA and TAS compliant

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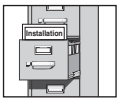
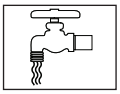
bradleycorp.com

IMPORTANT!

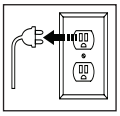


Read this entire installation manual to ensure proper installation. When finished with the installation, file this manual with the owner or maintenance department. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

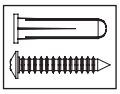
Separate parts from packaging and make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.



Make sure that all water supply lines have been flushed and then completely turned off before beginning installation. Debris in supply lines can cause valves to malfunction.



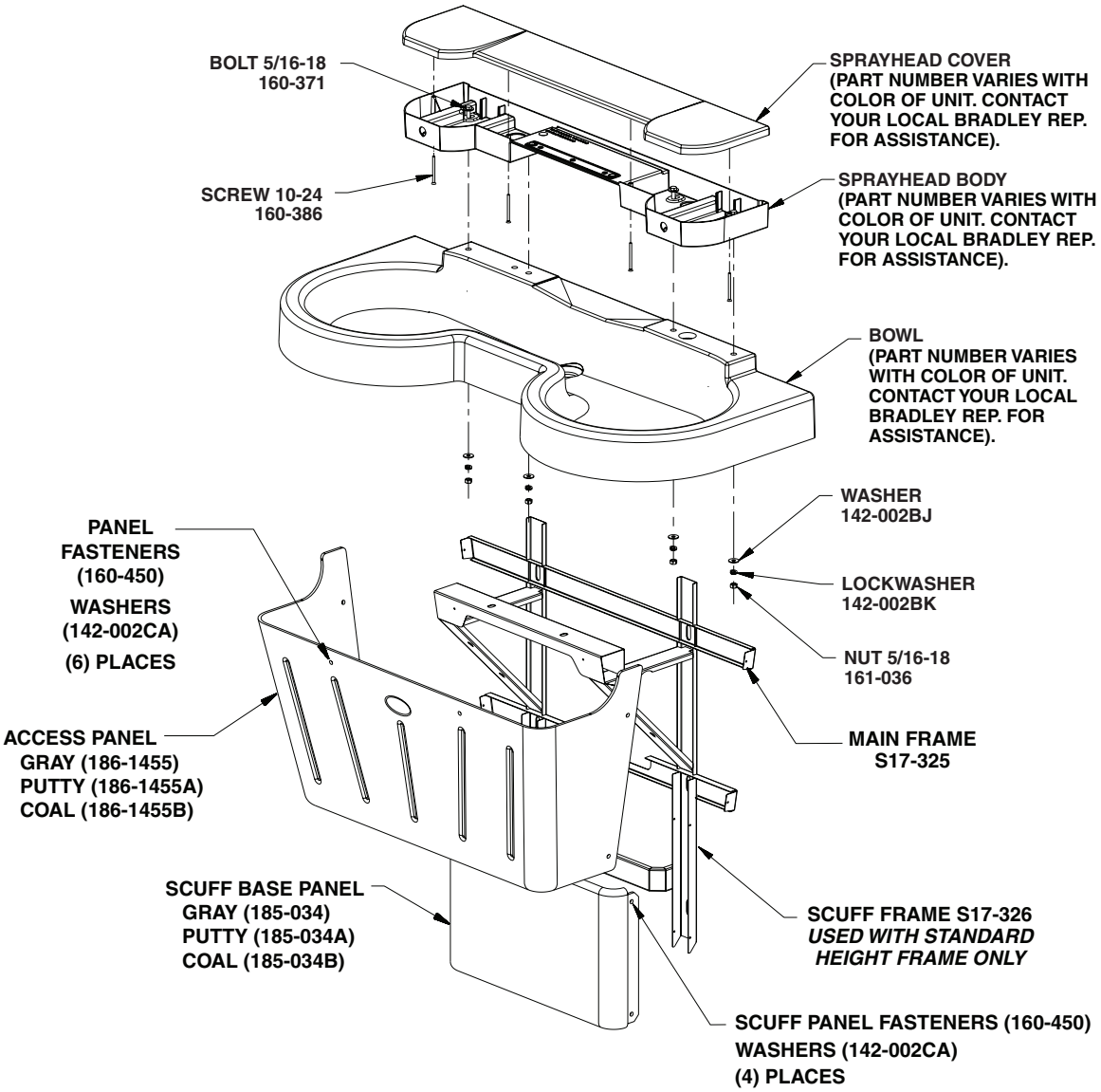
Turn OFF electrical power to the electrical outlets, then unplug all electrical units prior to installation. Electrical power MUST remain off until unit and optional water heater have been plumbed. After installation is complete, turn on the water supply first, then turn on the electrical power.



Hardware supplied by installer must be appropriate for wall construction. Wall anchors must have a minimum pull-out rating of 1,000 lbs. Follow appropriate dimensions for standard or juvenile height based on configuration and required rim height. Overtightening fasteners can damage the Terreon® material. Use caution when tightening bowl and sprayhead fasteners.

Product warranties may be found in the "Products" section on our Web site at bradleycorp.com.

Components

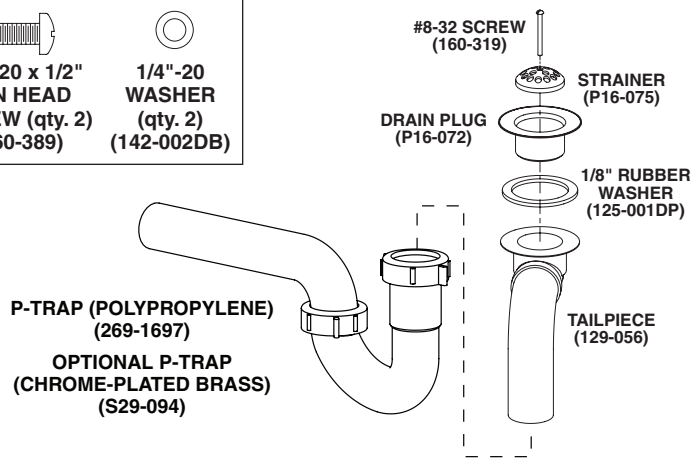


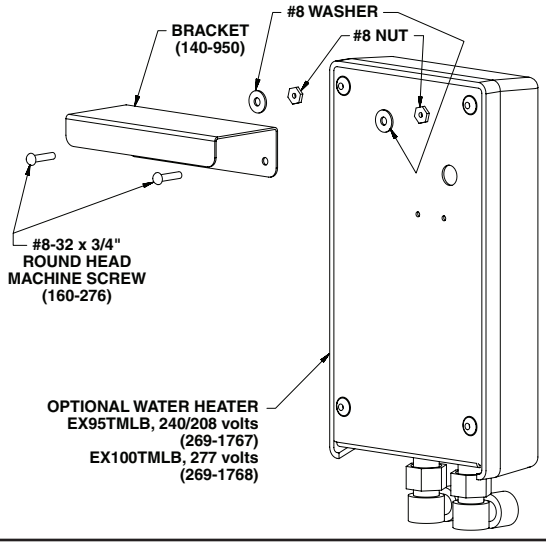
BOWL MOUNTING HARDWARE

1/4"-20 x 1/2" PAN HEAD SCREW (qty. 2) (160-389)

1/4"-20 WASHER (qty. 2) (142-002DB)

DRAIN ASSEMBLY



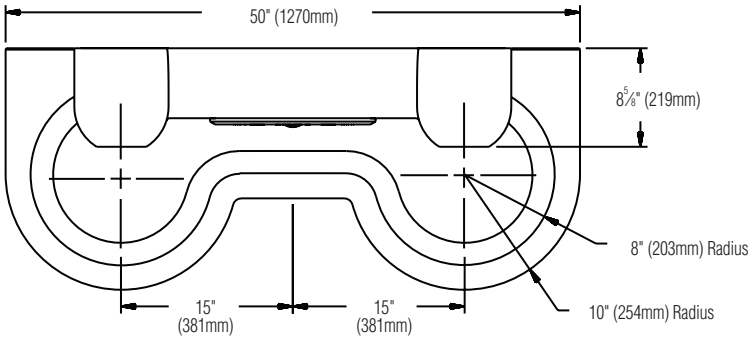


Supplies Required:

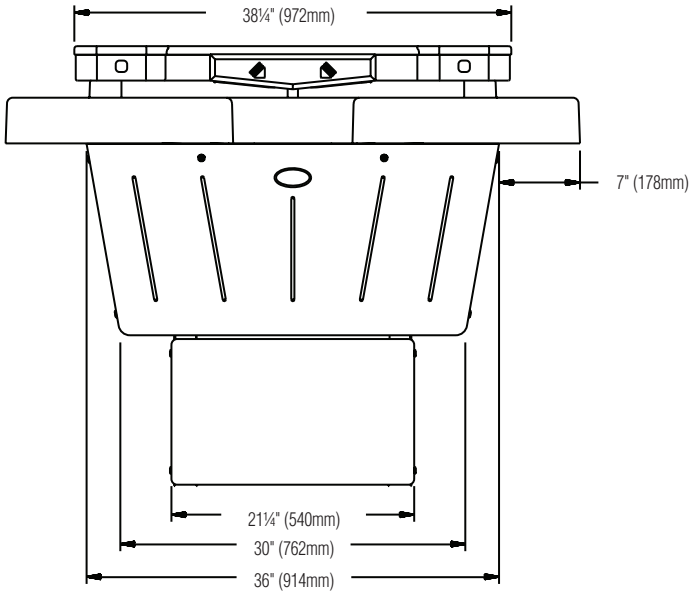
- (6) ⅜" wall anchors, bolts and 1" min. O.D. washers to mount main frame and bowl to wall (minimum pull-out rating of 1,000 lbs.)
- STD. HEIGHT ONLY: (2) ⅜" wall anchors, bolts and 1" min. O.D. washers to mount scuff base to wall
- ½" nominal copper tubing for hot and cold supplies and 1½" NPT drain piping
- OPTIONAL: 240/208-volt or 277-volt electrical box for electric tankless water heater

Dimensions - Front and Top Views

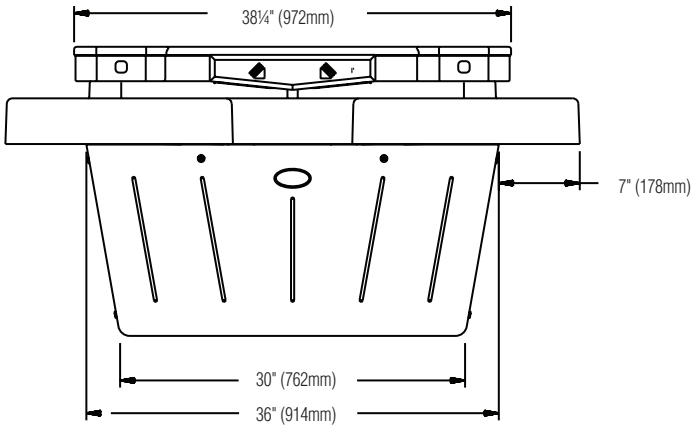
Top View



Front View Standard Frame

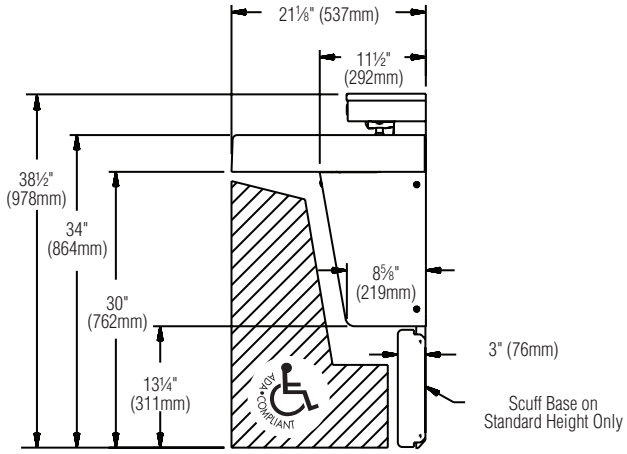


Front View Wall-Hung Frame

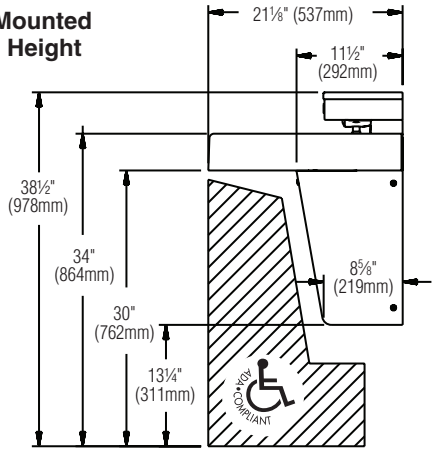


Dimensions - Side Views

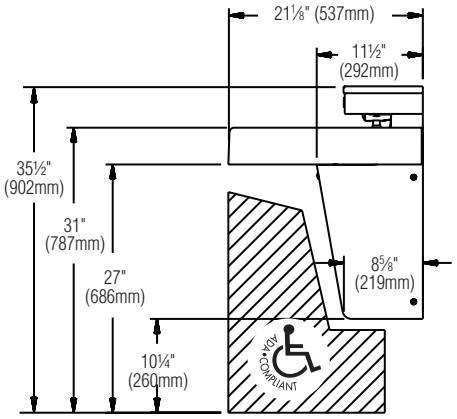
Standard Height



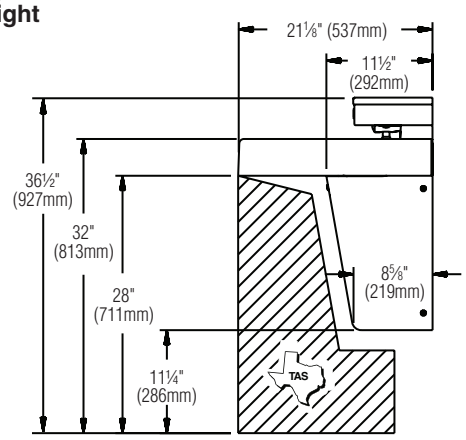
Wall Hung Mounted at Standard Height



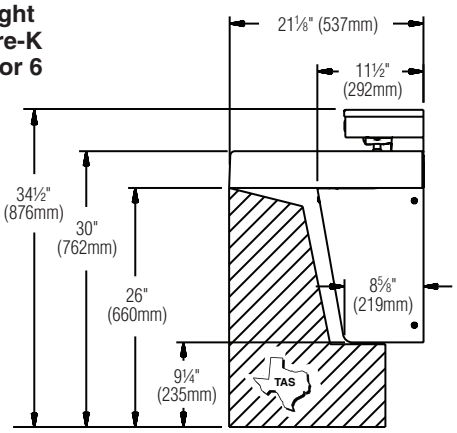
Wall Hung Mounted at Juvenile Height Ages: 6 through 12



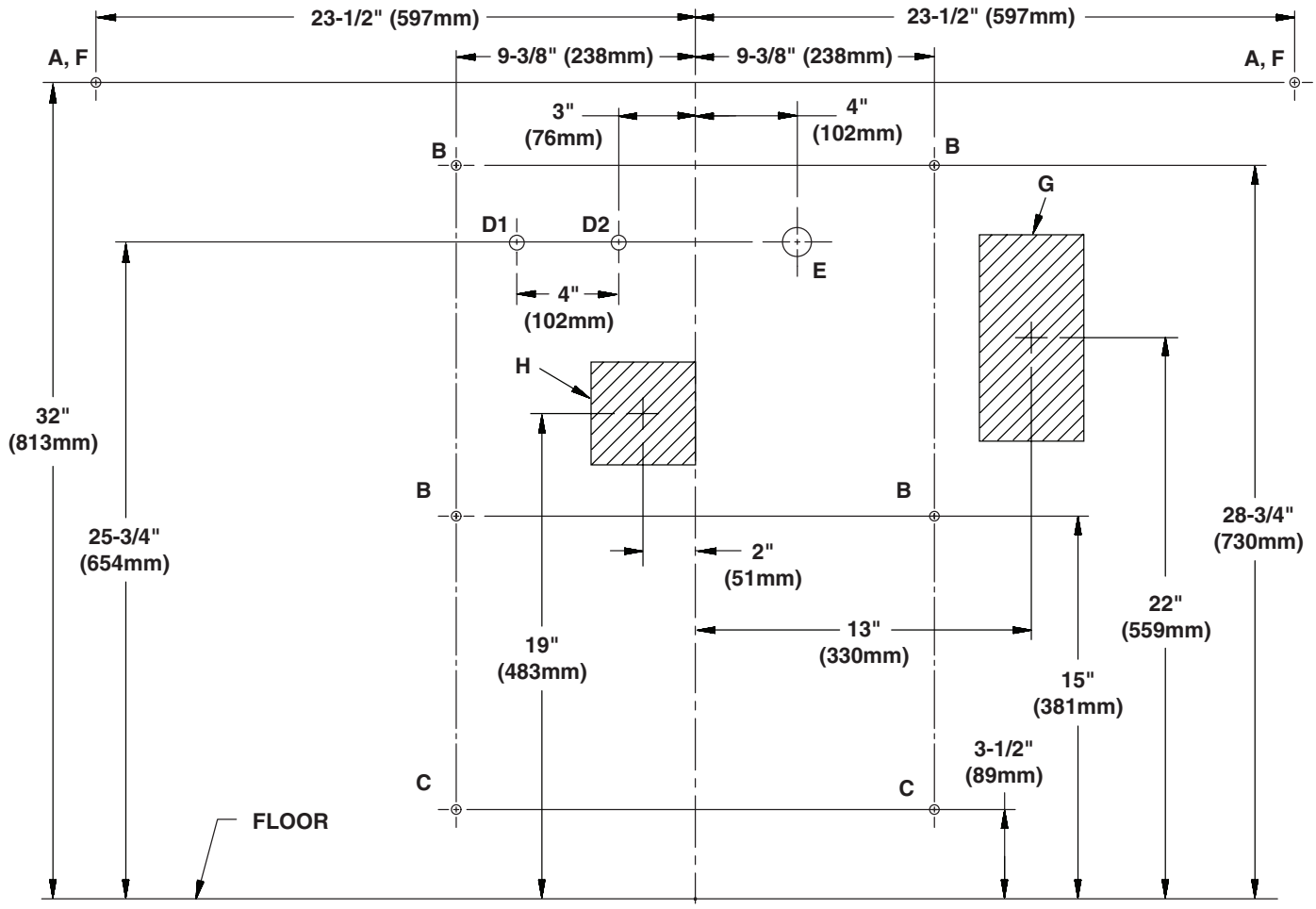
Wall Hung Mounted at TAS Height Grades: 6 through 8 or 9



Wall Hung Mounted at TAS Height Grades: Pre-K through 5 or 6



1 Rough-Ins

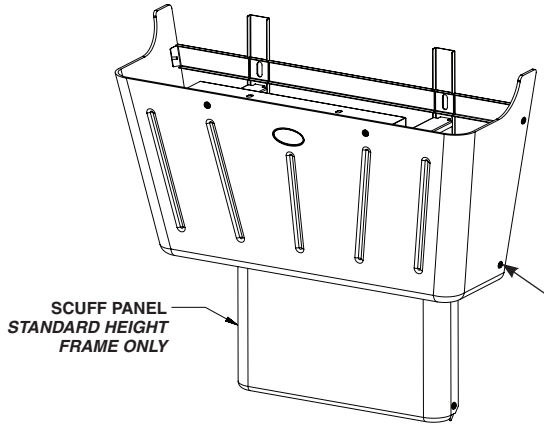


CODE	DESCRIPTION	QTY.
A	⅜" Wall Anchors with a minimum pull-out force of 1,000 lbs. for Bowl	2
B	⅜" Wall Anchors with a minimum pull-out force of 1,000 lbs. for Mainframe	4
C	⅜" Wall Anchors for Base Frame, Standard Frame option only, minimum pull-out force not required	2
D1	½" nominal copper tubing for Cold Supply, stub-out 2" from wall	1
D2	½" nominal copper tubing for Hot or Tempered Supply, stub-out 2" from wall	1
E	1½" NPT Drain, stub-out 2" from wall	2
F	On the bowl back, measure the distance between the ¾" bowl mounting holes. Divide this measurement in half. Measure and mark this dimension on the wall to the left and the right of the centerline. Install two ⅜" wall anchors with a minimum pull-out rating of 1,000 lbs (supplied by installer) at locations marked.	2
G	Water Heater Option #1: Rough-in appropriate electrical supply per local code (recommended location for 240/208v or 277v electrical box [4" long x 4" wide x 8" high] shown)	1
H	Water Heater Option #2: Rough-in appropriate electrical supply per local code (recommended location for 240/208v or 277v electrical box [4" long x 4" wide x 4" high] shown)	1

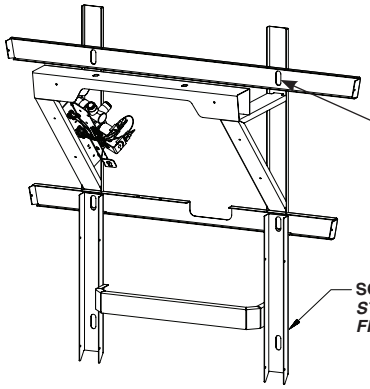
RIM HEIGHT	VERTICAL HEIGHT ADJUSTMENTS FOR CODES A–E, H, C and W	FIXTURE STYLE
34"	None	Standard Height
34"	None	Wall-Hung
32"	Subtract 2"	TAS, Grades 6 through 8 or 9
31"	Subtract 3"	Juvenile Height
30"	Subtract 4"	TAS, Pre-K through Grades 5 or 6

2 Mount Frame to Wall

Anchoring the frame to a wall that is not flat may cause the frame to bend, making it difficult to reinstall the access panels. If necessary, use shims to compensate for wall distortion.



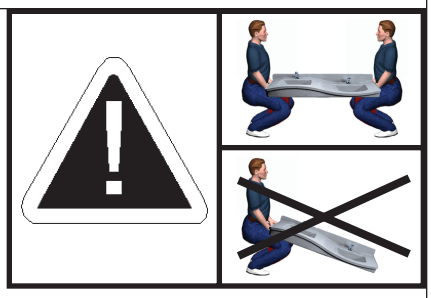
A Using a T20 torx key, remove the fasteners securing the access panel to the main frame, and remove the panel.



B Once you have positioned the frame such that it is level and flat against the wall or shimmed , mount the frame to the wall at four places using ⅜" bolts and 1" min. O.D. washers.

NOTE: When mounting the standard height frame, mount the scuff base to the wall at the same time using two additional ⅜" bolts and washers.

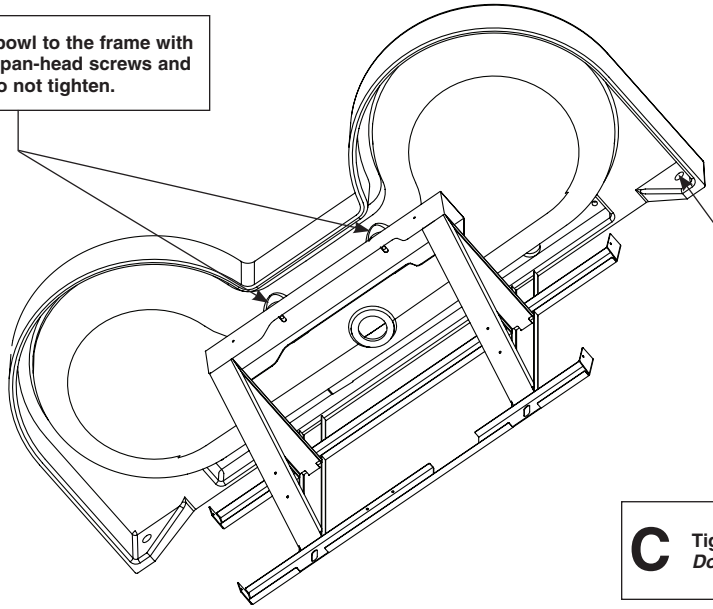
3 Install Bowl



The sprayhead body has slotted holes for adjusting the fit-up with the bowl and wall.

The tailpiece on the waste tee has been rotated upward for shipping purposes. Turn the tailpiece down to its proper position before installing the bowl.

A Attach the bowl to the frame with ¼"-20 x ½" pan-head screws and washers. Do not tighten.

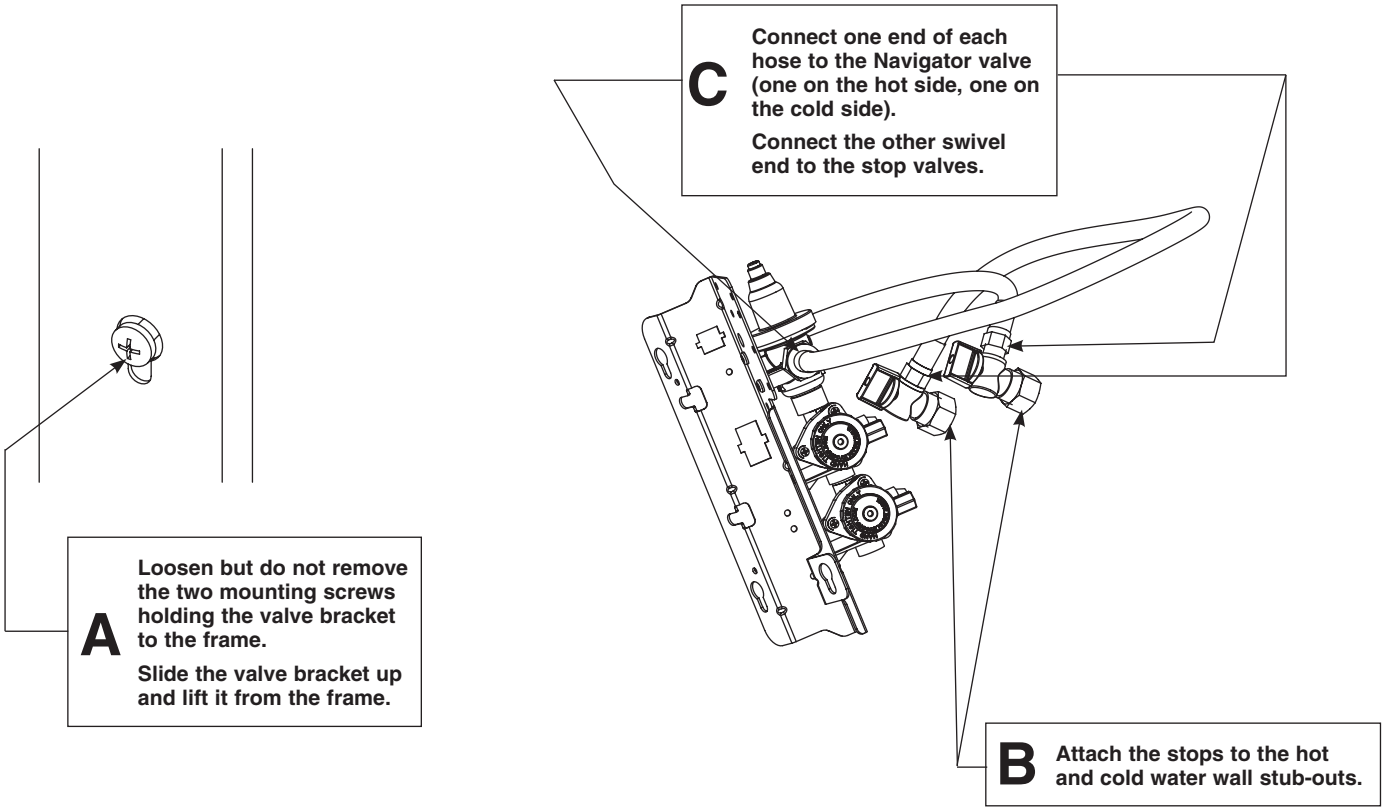


B Secure the bowl to the wall anchors with ⅜" bolts and 1" min. O.D. washers, two places. *Do not overtighten.*

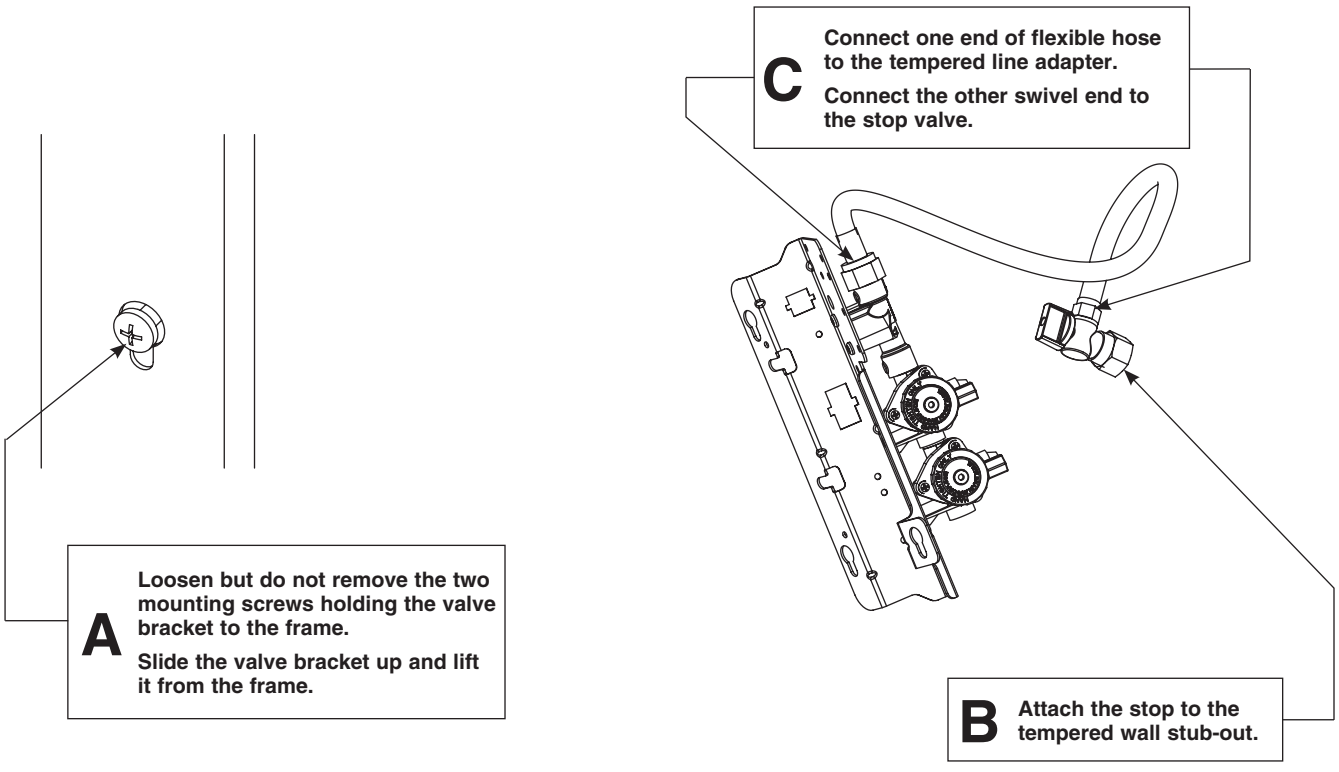
C Tighten the pan-head screws *Do not overtighten.*

4a Connect the Supply — Hot and Cold Supply

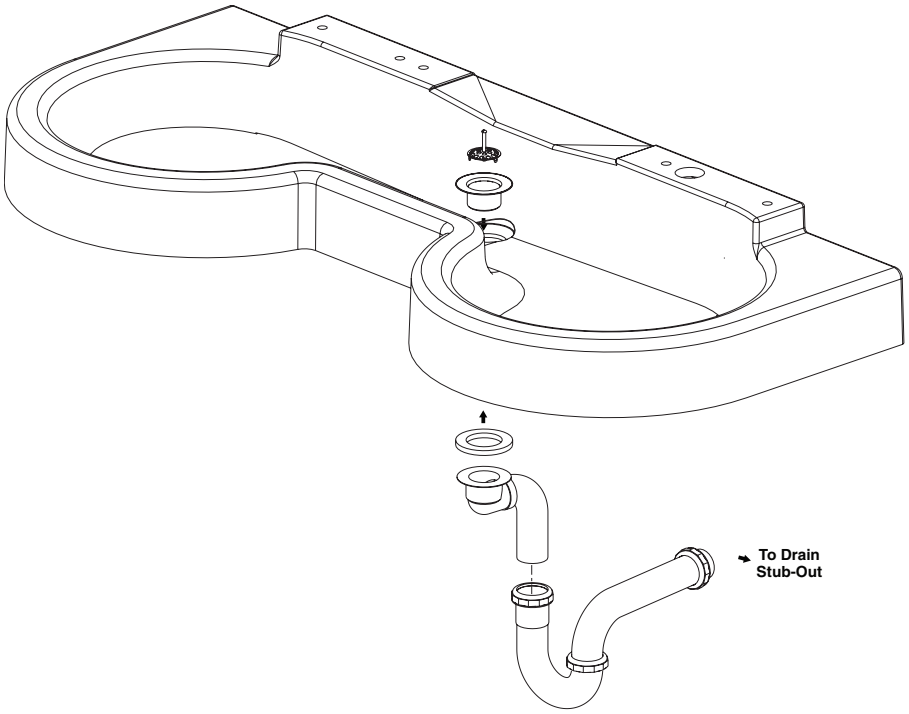
The letter "H" on the Navigator Mixing Valve indicates hot water supply inlet.


C
Connect one end of each hose to the Navigator valve (one on the hot side, one on the cold side).
Connect the other swivel end to the stop valves.
A
Loosen but do not remove the two mounting screws holding the valve bracket to the frame.
Slide the valve bracket up and lift it from the frame.
B
Attach the stops to the hot and cold water wall stub-outs.

4b Connect the Supply — Single Tempered Supply

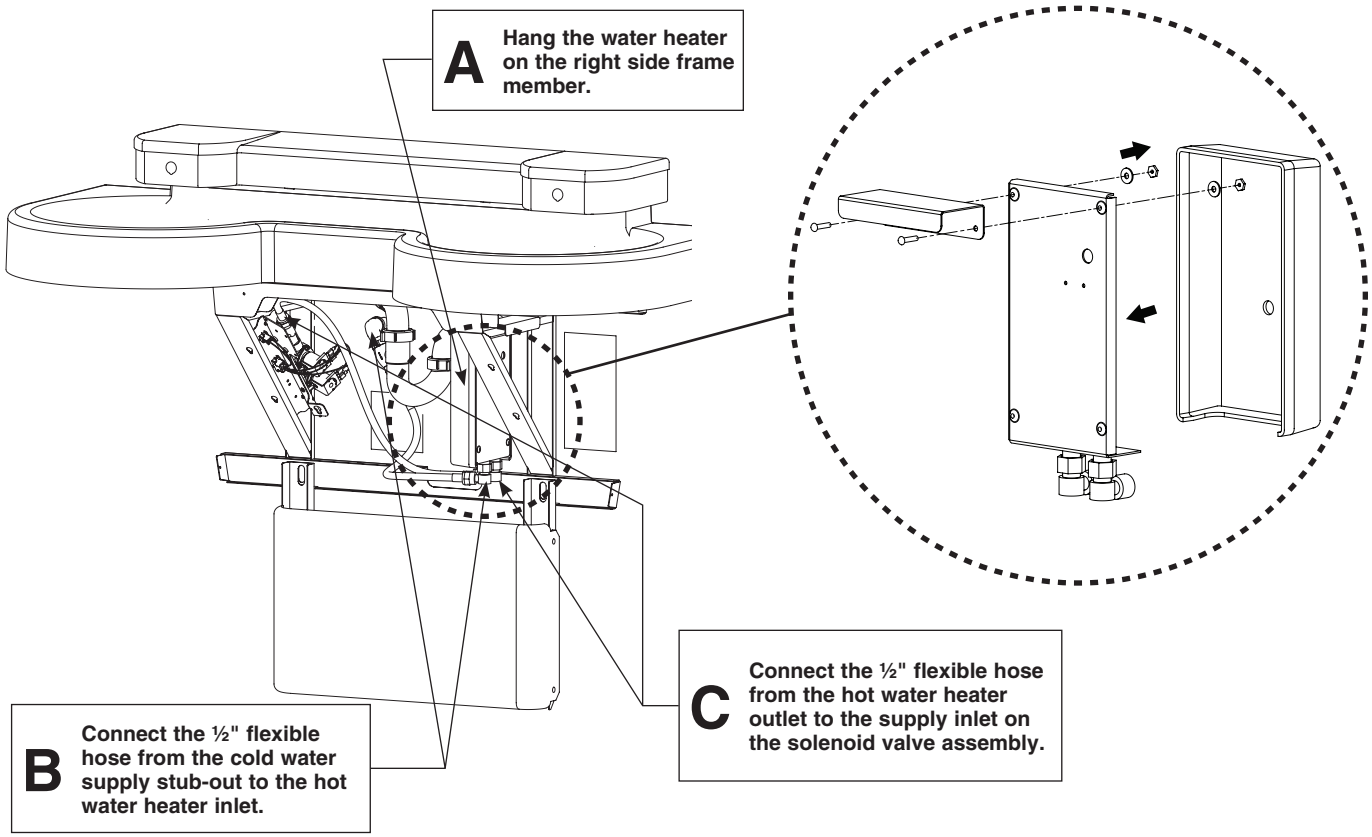

C
Connect one end of flexible hose to the tempered line adapter.
Connect the other swivel end to the stop valve.
A
Loosen but do not remove the two mounting screws holding the valve bracket to the frame.
Slide the valve bracket up and lift it from the frame.
B
Attach the stop to the tempered wall stub-out.

5 Install the Drain

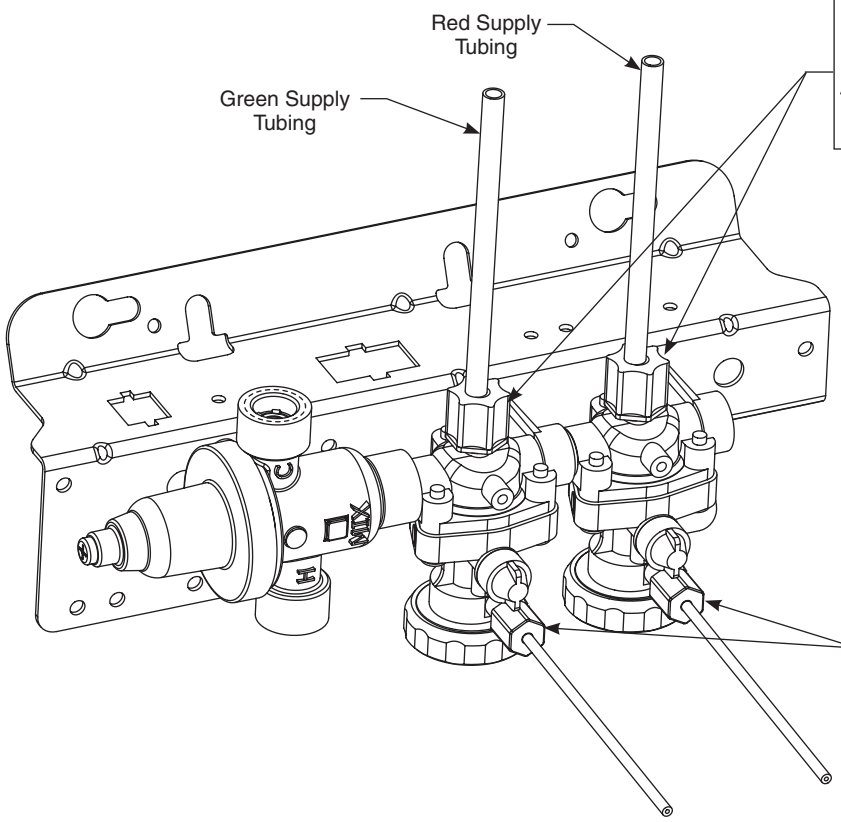


6 Optional Electric Tankless Water Heater

240/208 or 277 voltage is required for hot water heater. Refer to the installation manual provided with the hot water heater for further installation information.


A Hang the water heater on the right side frame member.
B Connect the ½" flexible hose from the cold water supply stub-out to the hot water heater inlet.
C Connect the ½" flexible hose from the hot water heater outlet to the supply inlet on the solenoid valve assembly.

7 Connect Supply and Tubing



A
Loosen the compression nuts.
Push the sprayhead supply tubes firmly into the tube connectors until they are fully seated.
Tighten the compression nuts by hand.

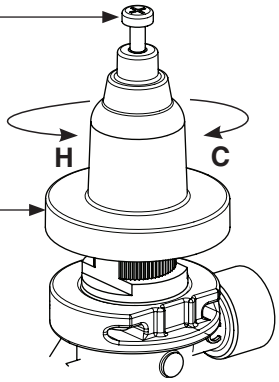
B
Loosen the compression nuts.
Push the matching color ⅛" tubes firmly into the tube connectors until they are fully seated.
Tighten the compression nuts by hand.

8 Adjust the Temperature

This valve is NOT factory preset. Upon installation, the temperature of this valve must be checked and adjusted to ensure delivery of a safe water temperature. Water in excess of 110°F (43°C) may cause scalding.

A **Loosen the cap screw about ¼" (4–6 turns) and lift up the cover (do not remove).**

B **Using the cover, turn the cartridge gently until desired water temperature is reached. Do not turn past stops as this may damage the unit. Push the cover down and tighten the screw.**

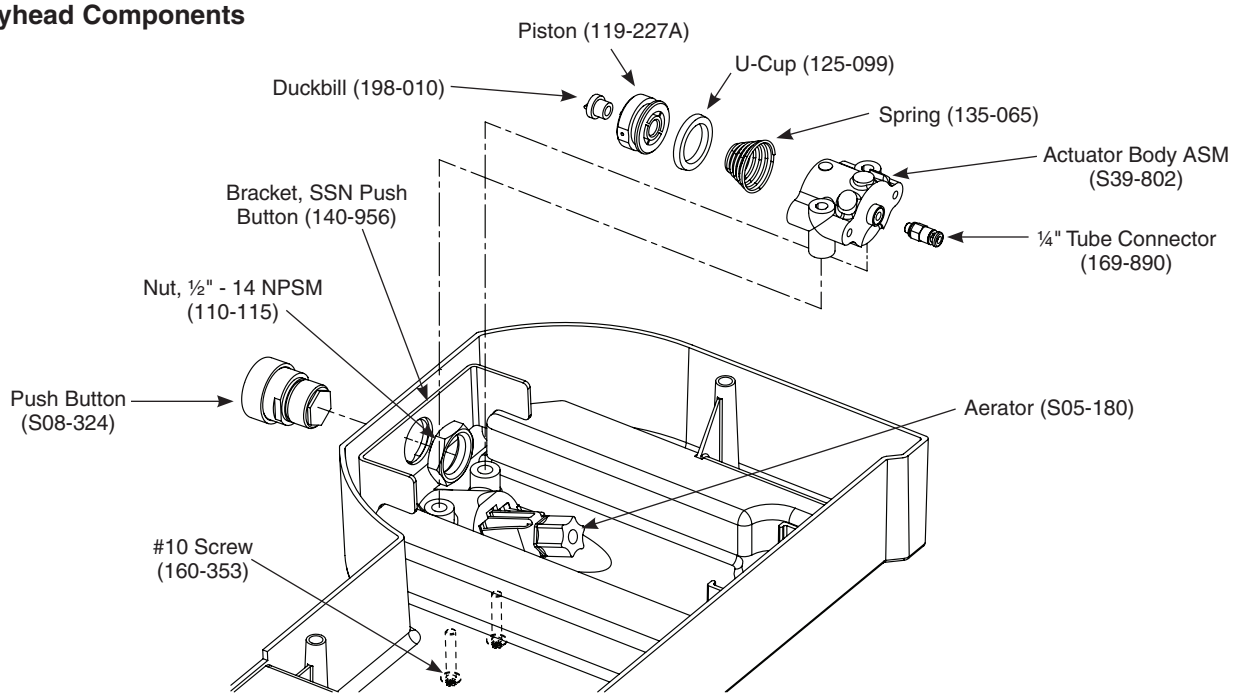


C **Reinstall the valve bracket. Turn on the water supply to the Express® and check for leaks. Push the operating buttons of each station until all the air is purged from the lines and water is flowing smoothly. Reinstall the access panel.**

Push Button Assembly

- **To access push button assembly:** Remove the Phillips-head screws located in the bottom of the sprayhead body and lift the Terreon cover/shelf off.
- **To reinstall sprayhead cover/shelf:** Position the cover/shelf on the sprayhead body and secure it to the sprayhead body using the screws provided.

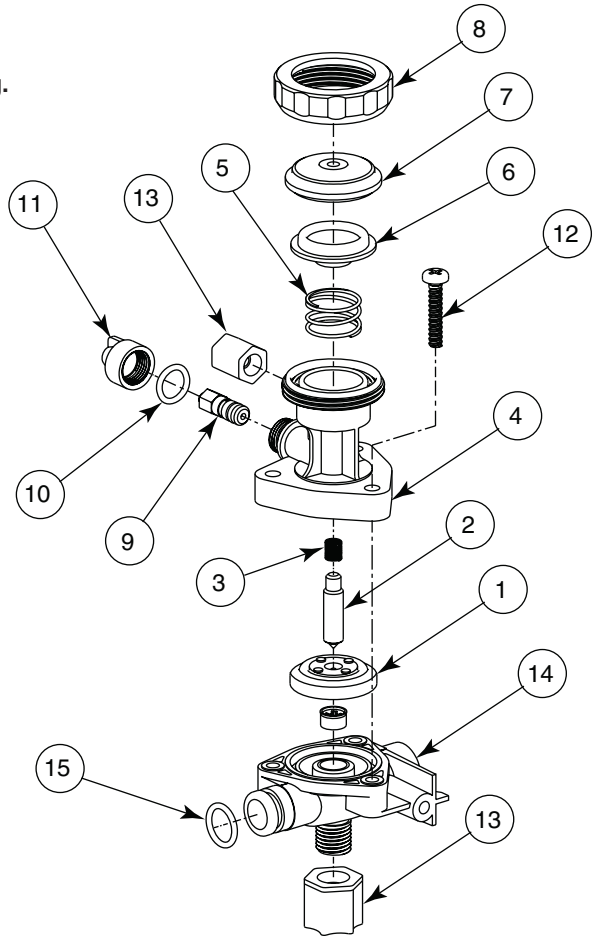
Sprayhead Components



Troubleshooting – Metering Air Valve

Turn off water supplies to the unit before troubleshooting.

Item	Qty.	Description
1	1	Diaphragm
2	1	Armature
3	1	Spring
4	1	AST 4 Valve Upper Body
5	1	Spring
6	1	Magnet/Diaphragm Assembly
7	1	AST 4 Valve Cover
8	1	AST 4 Valve Clamp Nut
9	1	AST 4 Valve Timer Assembly
10	2	O-Ring
11	1	AST 4 Valve Timer Cover
12	3	Screw, #8 x ⅞"
13	1	Compression Nut, ⅛" Tube
14	1	Compression Nut, ¼" Tube
15	1	O-Ring



Problem	*Cause*	*Solution*
Valve will not shut off.	Timing mechanism is clogged.	Clean and inspect timing mechanism: 1. If compressed air is available, blow water and debris from timer cover of timing mechanism. 2. Turn adjusting screw out all the way. Clean and inspect screw and valve body. 3. Turn adjusting screw in to desired cycle time.
Valve will not turn on.	Water is not being supplied to unit.	Open all stops on mixing valve.
	Water pressure is over 80 PSI.	Install a pressure reducing valve.
	Failed diaphragm/ magnet assembly.	Unscrew the valve clamp nut on valve. Remove valve cover. Gently press the diaphragm. The valve should activate. If not, replace the diaphragm/magnet assembly.
Timing can not be adjusted for more than 5 seconds.	There is an air leak.	Check the valve assembly: 1. Check all tubing and fittings for proper assembly. 2. Tighten cap and nut on ⅛" tubing.
Pushbutton does not work properly.	Air volume may not be sufficient to operate valve.	Check for leaks and lubricate U-cup: 1. Check all fittings for air leaks. 2. Disassemble pushbutton and lubricate U-cup seal (see pushbutton assembly diagram on page 9).
Water is dripping from the streamformers.	Debris has accumulated on valve seat or orifices.	Clean and inspect valve seat: 1. Remove screws and disassemble metering valve. 2. Clean valve seat and inspect for deep gouges or scratches. Replace valve body if necessary. 3. Remove any debris clogging off-center hole in rubber diaphragm.

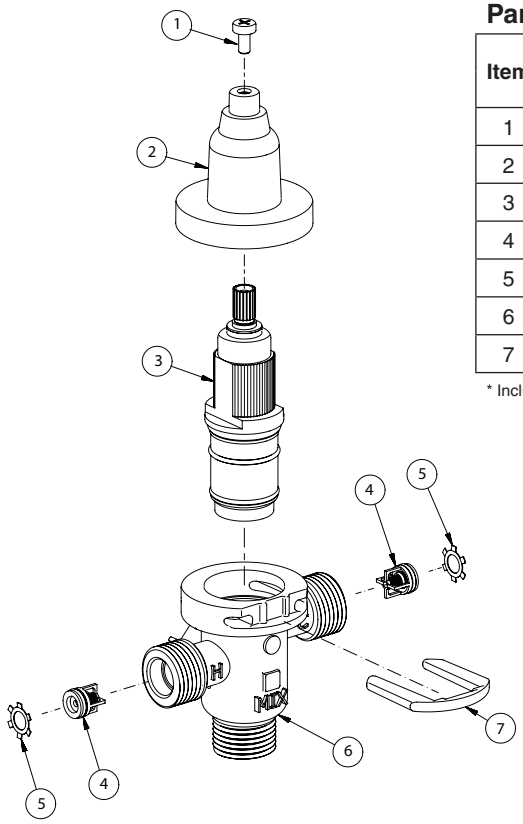
Thermostatic Mixing Valve Troubleshooting

Before attempting to troubleshoot the valve or disassemble the components, check for the following conditions:

- **If stop valves are used, make sure that they are fully open.**
- **Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop valves.**
- **Check the hot water heater output to make sure that it is at least 10° F above the set temperature.**

Be sure to close the appropriate shut-off valves prior to disassembly of the valve and reopen the valves after inspection and repair is complete.

Problem	***Cause***	***Solution***
External leaks.	*Damaged cartridge or O-rings.*	Replace cartridge with part number 269-1927
Improper water temperature or temperature fluctuation.	*Hot water supply is not 10° above desired set point.*	Increase hot water supply temperature
	Valve temperature is not properly set.	Adjust the temperature as shown on page 10, step 8.
Limited water flow.	*Dirt and debris have built up in the valve or strainer.*	1. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow. 2. Remove cover and U-clip. Remove the cartridge and clean the strainer. It is not required to grease cartridge, however if desired, use silicone grease only. Do not use grease on check valves.



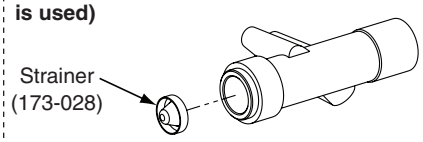
Parts List

Item	Part No.	Description	Quantity		
			S59-4000	S59-4000A	S59-4000BY
1	160-463	Cap Screw	1	1	1
2	107-582	Cover	1	1	1
3	269-1927	Thermostatic Cartridge	1	1	1
4	198-014	Check Valve*	2	2	2
5	132-051	Retaining Ring*	2	2	2
6	118-319	Valve Body	1	1	1
7	146-079	U-Clip	1	1	1

* Included with Prepack S65-326

Tempered Line Adapter Option
Part no. S39-804

(replaces S59-4000 if tempered line is used)



Stop Valve Troubleshooting

Problem	*Cause*	*Solution*
Water dribbles or does not flow from the sprayhead.	Stop Valves may not be functioning properly.	1. Close the stops and inspect the valves that supply water to the lavatory system. 2. Inspect the stop valves to see that they have been properly installed.
Sprayhead delivers ONLY hot OR cold water.	Stop Valves may not be functioning properly.	1. Close the stops and inspect the valves that supply water to the lavatory system. 2. Inspect the stop valves to see that they have been properly installed. 3. Inspect the thermostatic mixing valve for proper installation and connection to hot and cold supplies.

Cleaning and Maintenance for Terreon®

Material Description: Terreon is an NAHB-certified densified solid surface material composed of polyester resin and is resistant to chemicals, stains, burns and impact. Surface damage can be easily repaired with everyday cleansers or fine grit abrasives.

Routine Cleaning: Clean daily or as often as conditions require using a standard commercial or household cleaner such as Formula 409® or Windex®.

Stubborn Stains: Remove tough stains with Ajax®, Comet®, or Soft-Scrub® and a green Scotch-Brite® pad or lightly sand in a circular motion with 240 grit wet/dry sandpaper. The finish can be renewed with a maroon Scotch-Brite pad.

Special Situations for Terreon Material

Scratches: Remove scratches with a green Scotch-Brite pad. The finish can then be renewed with a maroon Scotch-Brite pad, followed by a white Scotch-Brite pad or 30-micron sandpaper.

Hard Water Deposits: Remove hard water deposits with a mild solution of vinegar and water. Always rinse the unit thoroughly after cleaning.

Restoring the surface: Use Hope's® Solid Surface cleaner and polish to refresh and protect the Terreon Solid Surface material. Bradley recommends additional care and maintenance for the darker colored Terreon. For complete instructions on this additional maintenance, visit bradleycorp.com.

Do not use strong acid or alkaline chemicals and cleansers to clean Terreon. If these chemicals come in contact with the surface, wipe them off immediately and rinse with soapy water. Avoid contact with harsh chemicals such as paint remover, bleach, acetone, etc. Avoid contact with hot pans and objects.

Repair Kits: Terreon repair kits are available. Contact your Bradley representative or distributor for part numbers and pricing. Repair kits are made to order and have a shelf life of 30 days.

Terreon® is a unique, cast solid surface material. Aggregate flow and distribution as well as shades of color can vary from product to product creating natural characteristics.

Brand Names

Use of brand names is intended only to indicate a type of cleaner. This does not constitute an endorsement, nor does the omission of any brand name cleaner imply inadequacy. Many products named are regional in distribution, and can be found in local supermarkets, department and hardware stores, or through your cleaning service. It is emphasized that all products should be used in strict accordance with package instructions.

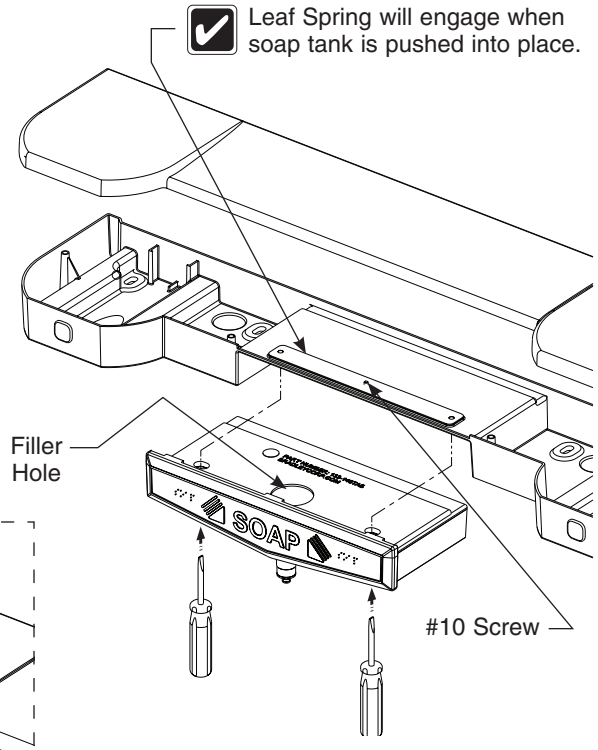
Fill Soap Dispenser

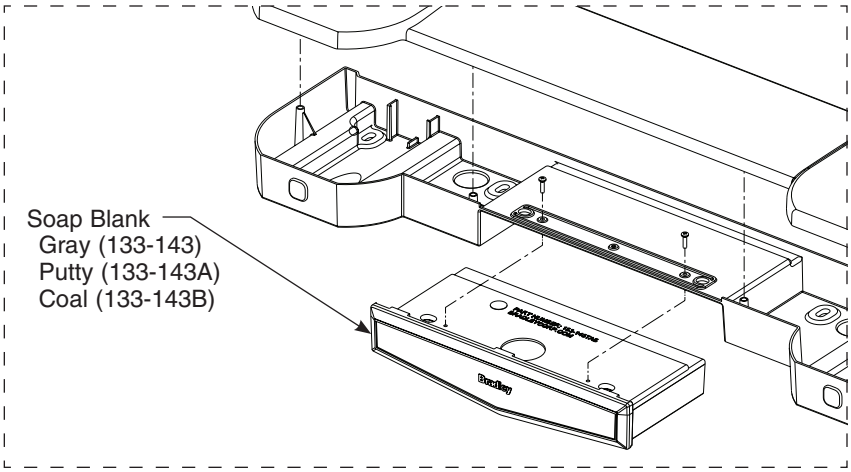
The soap valve will dispense vegetable/coconut oil liquid soaps, synthetic detergents, viscous lotion soaps, and antiseptic solutions. A 10-15% concentration is recommended for vegetable or coconut oil liquid soaps. Before filling, rinse out each soap tank with hot water to remove packing dust. Shake water out thoroughly and allow to dry. DO NOT OVERFILL!

Soap Tank Kits

S65-291 (Gray) includes:	S65-291A (Putty) includes:	S65-291B (Coal) includes:
Gray Tank w/Valve (S11-220)	Putty Tank w/Valve (S11-220A)	Coal Tank w/Valve (S11-220B)
Leaf Spring (S39-350)	Leaf Spring (S39-350)	Leaf Spring (S39-350)
Screw (160-385)	Screw (160-385)	Screw (160-385)

Soap Valve Repair Kit (S65-258)
(includes Nut, Spring, Washer and Plunger)





Clean Soap Dispenser

Do not use abrasive cleansers to clean the soap tank. Abrasive cleaners can damage the surface.

Regular cleaning of the soap dispenser is recommended to ensure optimum performance and maximum service life. Cleaning the soap dispenser monthly to remove soap residue, dirt, and other accumulations should become a regular part of your washroom cleaning routine and general maintenance program.

Clean exterior: Use warm water and soap to clean the exterior of the soap dispenser. Dry with a soft cloth.

Clean interior: Inspect the interior of the tank for residue or coagulation of soap. If necessary, clean the tank according to the following procedure:

1. Pour out any remaining soap in the tank.
2. Full the tank half-full of hot water and shake the tank to dislodge the soap residue.
3. Empty the water from the container and repeat steps 1 and 2 until the soap container is clean.

If rinsing alone does not remove the soap residue, place a small chain (24 inches long) into the tank with hot water and shake the container until the chain dislodges the residue. Then remove the chain and rinse out the tank.

Clean internal components: Pump hot water through the soap dispenser until a clean flow of water comes out of the valve.

To change soap, pour out all of the soap from the dispenser ans rinse with hot water several times until all residue is removed. Pump the valve until clean water appears. Rinse the dispenser with ethyl alcohol; air dry before refilling.